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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/763,724	02/27/2001	Laurent Mollard	06569/0212	3719

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FOLEY AND LARDNER
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3000 K STREET NW
WASHINGTON, DC 20007

EXAMINER

MOHAMED, ABDEL A

ART UNIT	PAPER NUMBER
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1653

DATE MAILED: 04/08/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/763,724

Applicant(s)

MOLLARD ET AL.

Examiner

Abdel A. Mohamed

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 16 January 2004.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-3 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-3 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

ACKNOWLEDGMENT TO AMENDMENT, REMARKS AND STATUS OF THE CLAIMS

1. The amendment and remarks filed 1/16/04 are acknowledged, entered and considered. In view of Applicant's request claim 1 has been amended and claims 4-6 have been canceled. Thus, claims 1-3 are now pending in the application. The objection to the abstract and the rejection under 35 U.S.C. 102(b) are withdrawn in view of Applicant's amendment, remarks and cancellation of claims. However, the rejection under 35 U.S.C. 103(a) over the prior art of record is maintained.

CLAIMS REJECTION-35 U.S.C. § 103(a)

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(f) or (g) prior art under 35 U.S.C. 103(a).

Claims 1-3 remain rejected under 35 U.S.C. 103(a) as being unpatentable over Moore (U.S. Patent No. 5,637,321) taken with Lin (U.S. Patent No. 5,384,149).

Moore teaches similarly as the instantly claimed invention method for separating and extracting cartilages from avian origin, preferably chicken cartilage. The separated and extracted cartilages are diced or otherwise comminuted by means known in the art desirably into particles no larger than a dose in the amount of at least about 0.01 gram and preferably from about 0.1 to about 0.5 of grams of chicken cartilage which can be used to obtain type II collagen and as such meeting the limitations of obtaining particle size of less than about 1 cm. (See e.g., col. 2, lines 24 to 62) as directed to claim 1 as currently amended. Note that the reference cites in grams while the claim cites in centimeters, however, since 1 gram = 1 cm, 0.01 gram = 0.01 cm, and similarly 0.1 to 0.5 grams = 0.1 to 0.5 cms, and as such, the units recited in the reference is less than about 1 cm.

Moore differs from claims 1-3 in not teaching the use of a water-soluble separating vessel having an ascending vertical component and wherein the separating liquid is water or edible brine (salt solution such as NaCl). Although, the reference of Moore does not teach the separation and extraction of cartilages from ground poultry skeleton by a flow of edible liquid circulating in a separating vessel, however, the reference clearly teaches the blending process which includes mixing and/or blending of cartilages by using a blender. Thus, the use of a blender is a clear indication that the extracted cartilage is processed in a separating vessel having an ascending vertical component (See e.g., col. 3 and Example 1) as directed to claims 1 and 2. With respect to the general method wherein the separating liquid is water or edible brine; however, the general method of separating liquid is water or a salt solution is conventional and within the ordinary skill in the art to which this invention pertains to use water for

separating liquid or salt solutions for the intended purposes of obtaining and/or recovering of any cartilage of interest. Nevertheless, wherein water is used for separating liquid or salt solution is clearly disclosed by the secondary reference of Lin, on col. 2, lines 32-44 and Figure 1, as directed to claim 3. The reference clearly states that animal carcass by-product (i.e., bone by-product) are collected in a sanitary manner and comminuted. Comminuted by-products are mixed with water and salt at a predetermined ionic strength to dissolve salt soluble proteins. Thus, clearly showing that the separating liquid is water or edible brine.

Therefore, in view of the above, one of ordinary skill in the art would have been motivated to adapt the well known general method wherein the separating liquid is water or edible brine scheme of Lin's secondary reference into the method of Moore's primary reference because including such features into the method of Moore's reference would have been obvious to one of ordinary skill in the art to obtain the known and recognized functions and advantages of using water for separating liquid or salt solution thereof. Therefore, the combined teachings of the prior art makes obvious a method for separating and extracting cartilages of avian origin, wherein the cartilages are separated and extracted from ground poultry skeletons by flow of edible liquid circulating in a separating vessel thereof, absence of sufficient objective factual evidence or unexpected results to the contrary.

ARGUMENTS ARE NOT PERSUASIVE

3. The rejection of claims 1-3 remain rejected under 35 U.S.C. 103(a) as being unpatentable over Moore (U.S. Patent No. 5,637,321) taken with Lin (U.S. Patent No. 5,384,149).

Applicant's arguments filed 1/16/04 have been fully considered but they are not persuasive. Applicant has argued that the Moore reference does not contain the limitation of Applicant's claim 1 because the reference teaches the dicing or comminution of previously separated and extracted cartilages. Applicant, in distinction, grinds poultry skeletons first, and then separates and extracts cartilages from other tissues is not persuasive. Contrary to Applicant's argument, the Examiner has clearly indicated as discussed above that the reference of Moore teaches method for separating and extracting cartilages from avian origin, preferably chicken cartilage. The separated and extracted cartilages are diced or otherwise comminuted by means known in the art until the particle is in the amount of at least less than 0.5 g or less is obtained regardless of the extraction of cartilage first, with dicing second or the grinding of the entire skeleton, including unextracted cartilage first, and then separation of the cartilage second. The limitations Applicant argued with (i.e., grinding the entire skeleton first before dicing or comminuting the extracted cartilage) are not recited in the rejected claims(s). Nevertheless, the claims are interpreted in light of the specification, limitation from specification are not read into claims. See *In re Geuns*, 988 F.2nd 1181, 26 USPQ2d 1057 (Fed. Cir. 1993). Thus, Applicant's argument is not commensurate to the scope of the claims. Further, Applicant asserts that gram is unit of mass, while centimeter is a unit of distance and/or size. At most, one cubic centimeter of water weighs one gram. Thus, Moore does not teach the limitation of particle size being less than about one centimeter. At most Moore teaches the mass of particles, which is different than the size of particles. Contrary to Applicant's assertion, as acknowledged

by Applicant that one cubic centimeter of water weighs one gram, this is a clear indication that there is relationship between centimeter and gram because if a centimeter is a unit of distance and/or size, and gram is a unit of mass, then distance and /or size does not exist in vacuum. It has to occupy certain mass, and as such, one can equate grams with centimeters. Furthermore, The Examiner has clearly indicated above that the reference cites in grams while the claim cites in centimeters, however, since $1 \text{ gram} = 1 \text{ cm}$, $0.01 \text{ gram} = 0.01 \text{ cm}$, and similarly $0.1 \text{ to } 0.5 \text{ grams} = 0.1 \text{ to } 0.5 \text{ cms}$, and as such, the units recited in the reference is less than about 1 cm.

In regard to Applicant's argument that the Moore reference does not teach nor disclose a flowing separating liquid having an ascending vertical component, the Examiner agrees that the reference of Moore does not teach the separation and extraction of cartilages from ground poultry skeleton by a flow of edible liquid circulating in a separating vessel, however, the reference clearly teaches the blending process which includes mixing and/or blending of cartilages by using a blender. Thus, the use of a blender is a clear indication that the extracted cartilage is processed in a separating vessel having an ascending vertical component (See e.g., the whole col. 3 and Example 1) as directed to claims 1 and 2.

With respect to Applicant's argument that the secondary reference of Lin does not teach, suggest, or disclose the use of water or salt solution as separating liquid for cartilage. Thus, Applicant's physical use of a liquid to separate cartilage from bone tissue is not disclosed, taught, or suggested by the secondary reference of Lin, either alone or in combination with primary reference of Moore is unpersuasive. Contrary to

Applicant's argument, with respect to the general method wherein the separating liquid is water or edible brine; however, the general method of separating liquid is water or a salt solution is conventional and within the ordinary skill in the art to which this invention pertains to use water for separating liquid or salt solutions for the intended purposes of obtaining and/or recovering of any cartilage of interest. Nevertheless, wherein water is used for separating liquid or salt solution is clearly disclosed by the secondary reference of Lin, on col. 2, lines 32-44 and Figure 1, as directed to claim 3. The reference clearly states that animal carcass by-product (i.e., bone by-product) are collected in a sanitary manner and comminuted. Comminuted by-products are mixed with water and salt at a predetermined ionic strength to dissolve salt soluble proteins. Thus, clearly showing that the separating liquid is water or edible brine.

Therefore, in view of the above, one of ordinary skill in the art would have been motivated to adapt the well known general method wherein the separating liquid is water or edible brine scheme of Lin's secondary reference into the method of Moore's primary reference because including such features into the method of Moore's reference would have been obvious to one of ordinary skill in the art to obtain the known and recognized functions and advantages of using water for separating liquid or salt solution thereof. Thus, the combined teachings of the prior art makes obvious a method for separating and extracting cartilages of avian origin, wherein the cartilages are separated and extracted from ground poultry skeletons by flow of edible liquid circulating in a separating vessel.

Therefore, in view of the above, and in view of the combined teachings of the prior art; one of ordinary skill in the art would have been motivated at the time the invention was made to employ or use the subject composition in combination with other materials to provide a wide variety of applications or may be tailored for specific application in the manner claimed. Therefore, it is made obvious by the combined teachings of the prior art since the instantly claimed invention which falls within the scope of the combined teachings of the prior art method would have been *prima facie* obvious from said prior art disclosure to a person of ordinary skill in the art because as held in host of cases including *Ex parte Harris*, 748 O.G. 586; *In re Rosselete*, 146 USPQ 183; *In re Burgess*, 149 USPQ 355 and as exemplified by *In re Best*, "the test of obviousness is not express suggestion of the claimed invention in any and all of the references but rather what the references taken collectively would suggest to those of ordinary skill in the art presumed to be familiar with them".

ACTION IS FINAL

4. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any

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extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.


CONCLUSION AND FUTURE CORRESPONDANCE

5. No claim is allowed.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Abdel A. Mohamed whose telephone number is (571) 272-0955. The examiner can normally be reached on Monday through Friday from 7:30 a.m. to 5:00 p.m. The examiner can also be reached on alternate Fridays.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Christopher S.F. Low, can be reached on (571) 272-0951. The fax phone number for the organization where this application or proceeding is assigned is (703) 872-9306 for regular communications and (703) 305-7401 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (571) 272-1600.

 Mohamed/AAM

April 5, 2004


CHRISTOPHER S. F. LOW
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 1600